

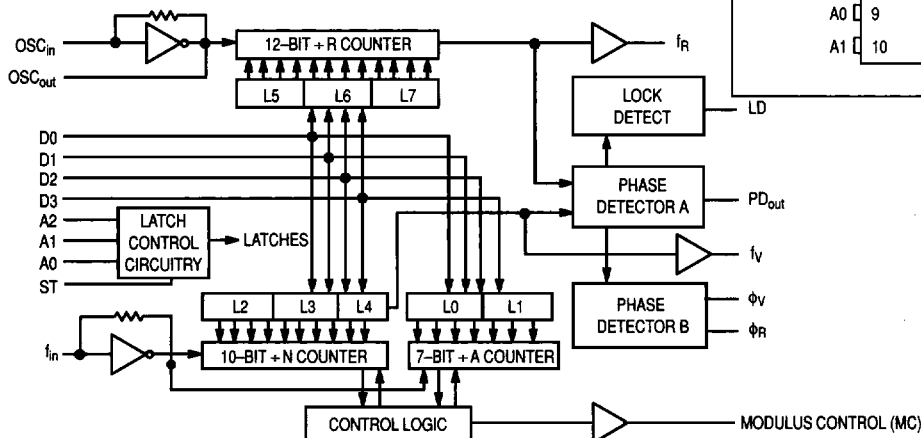
## 4-Bit Data Bus Input PLL Frequency Synthesizer Interfaces with Dual-Modulus Prescalers

The MC145146-2 is programmed by a 4-bit input, with strobe and address lines. The device features consist of a reference oscillator, 12-bit programmable reference divider, digital phase detector, 10-bit programmable divide-by-N counter, 7-bit divide-by-A counter, and the necessary latch circuitry for accepting the 4-bit input data.

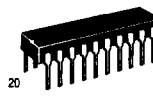
- Operating Temperature Range:  $-40$  to  $85^{\circ}\text{C}$
- Low Power Consumption Through the Use of CMOS Technology
- 3.0 to 9.0 V Supply Range
- Programmable Reference Divider for Values Between 3 and 4095
- Dual-Modulus 4-Bit Data Bus Programming
- + N Range = 3 to 1023, + A Range = 0 to 127
- "Linearized" Digital Phase Detector Enhances Transfer Function Linearity
- Two Error Signal Options:
  - Single-Ended (Three-State)
  - Double-Ended

**NOT RECOMMENDED FOR NEW DESIGNS;  
PRODUCT TO BE PHASED OUT.**  
Closest equivalents are the MC145152-2, MC145170-1,  
MC14519X series, and MC14520X series.

**BLOCK DIAGRAM**



## MC145146-2



**P SUFFIX**  
PLASTIC DIP  
CASE 738



**DW SUFFIX**  
SOG PACKAGE  
CASE 751D

### ORDERING INFORMATION

MC145146P2 Plastic DIP  
MC145146DW2 SOG Package

### PIN ASSIGNMENT

D1	1	20	D2
D0	2	19	D3
f <sub>in</sub>	3	18	f <sub>R</sub>
V <sub>SS</sub>	4	17	phi <sub>R</sub>
PD <sub>out</sub>	5	16	phi <sub>V</sub>
V <sub>DD</sub>	6	15	f <sub>V</sub>
OSC <sub>in</sub>	7	14	MC
OSC <sub>out</sub>	8	13	LD
A0	9	12	ST
A1	10	11	A2